6,917,936 B2

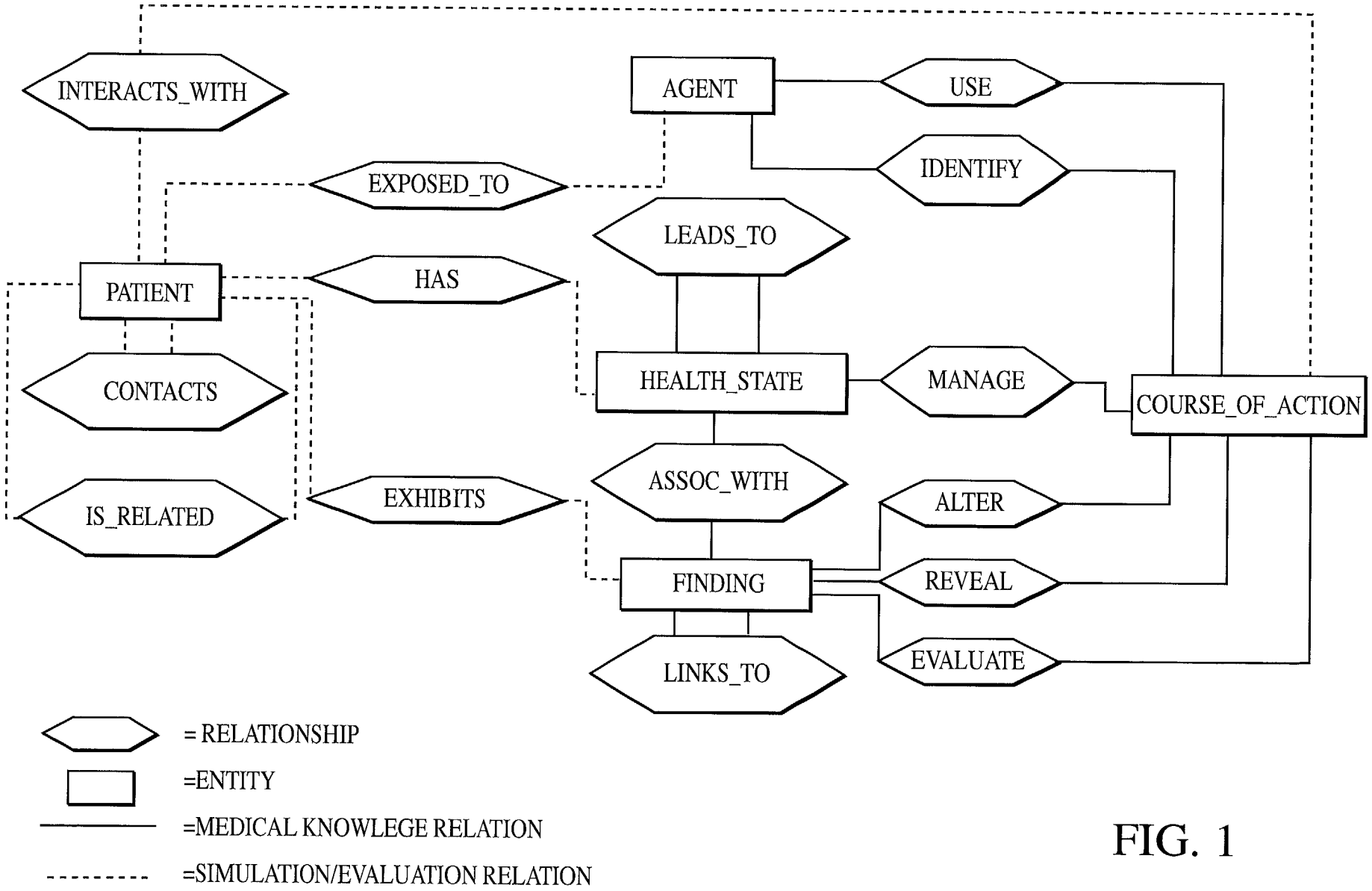


FIG. 1

FOSTER 90265260

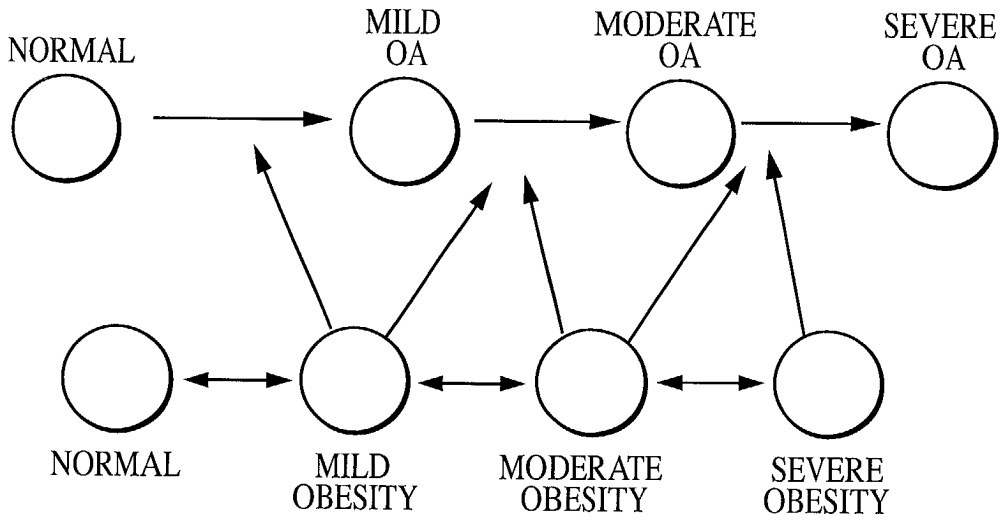


FIG. 2

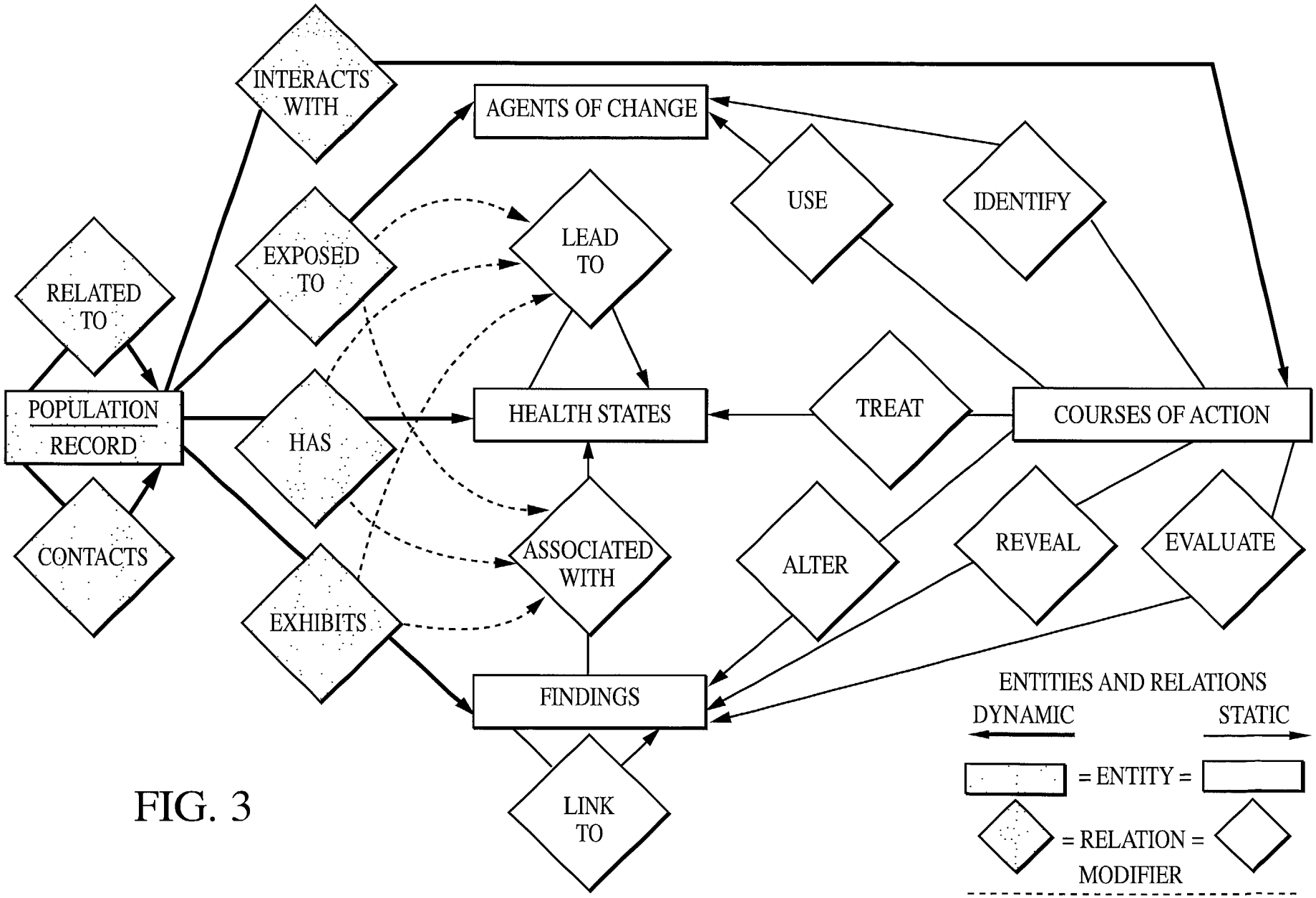

INTERACTS WITH
AGENTS OF CHANGE
USE
IDENTIFY
EXPOSED TO
LEAD TO
RELATED TO
POPULATION RECORD
HAS
HEALTH STATES
TREAT
COURSES OF ACTION
CONTACTS
ASSOCIATED WITH
ALTER
REVEAL
EVALUATE
EXHIBITS
FINDINGS
LINK TO
ENTITIES AND RELATIONS
DYNAMIC
STATIC
= ENTITY =
= RELATION =
MODIFIER

FIG. 3

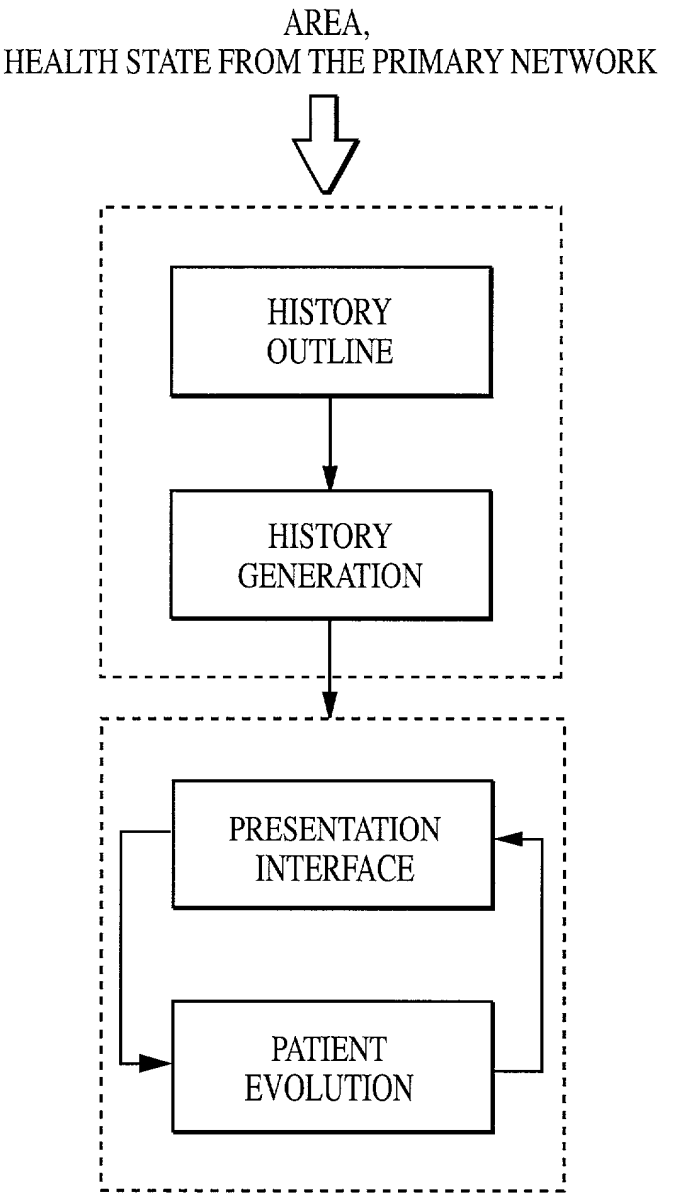

AREA,
HEALTH STATE FROM THE PRIMARY NETWORK
HISTORY OUTLINE
HISTORY GENERATION
PRESENTATION INTERFACE
PATIENT EVOLUTION

FIG. 4

FIG. 5

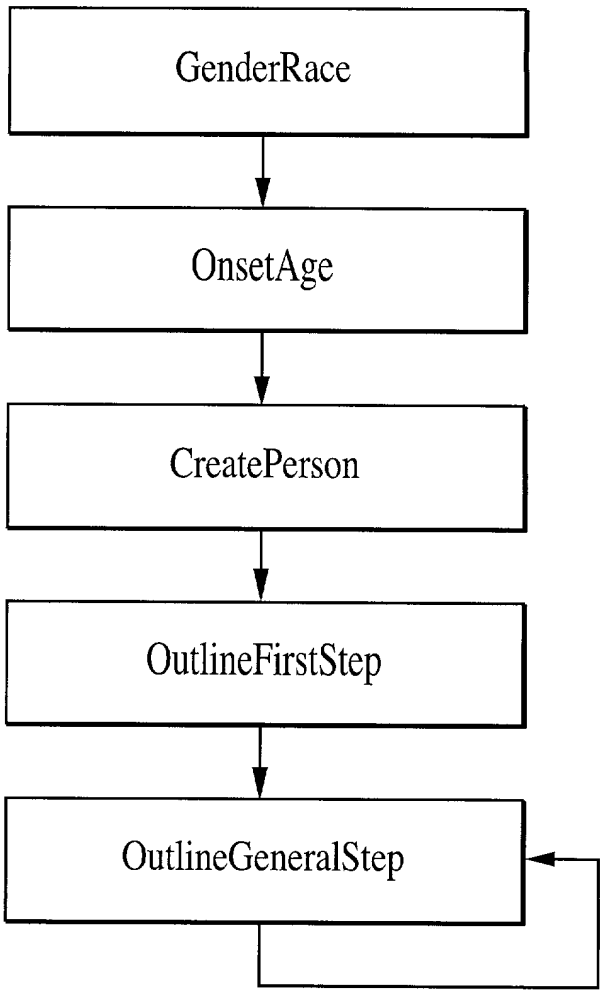
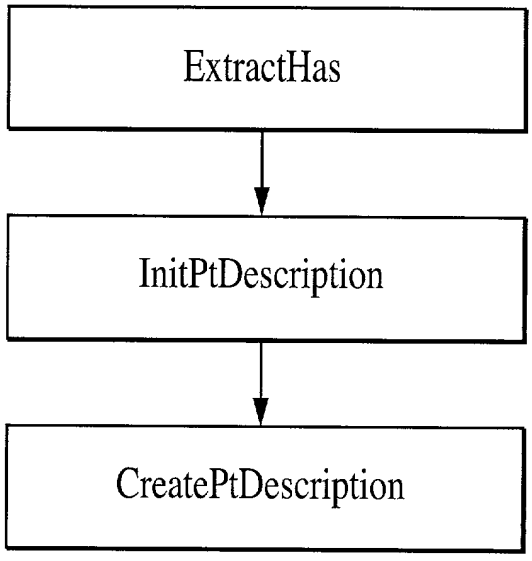

GenderRace
OnsetAge
CreatePerson
OutlineFirstStep
OutlineGeneralStep

FIG. 6


ExtractHas
InitPtDescription
CreatePtDescription

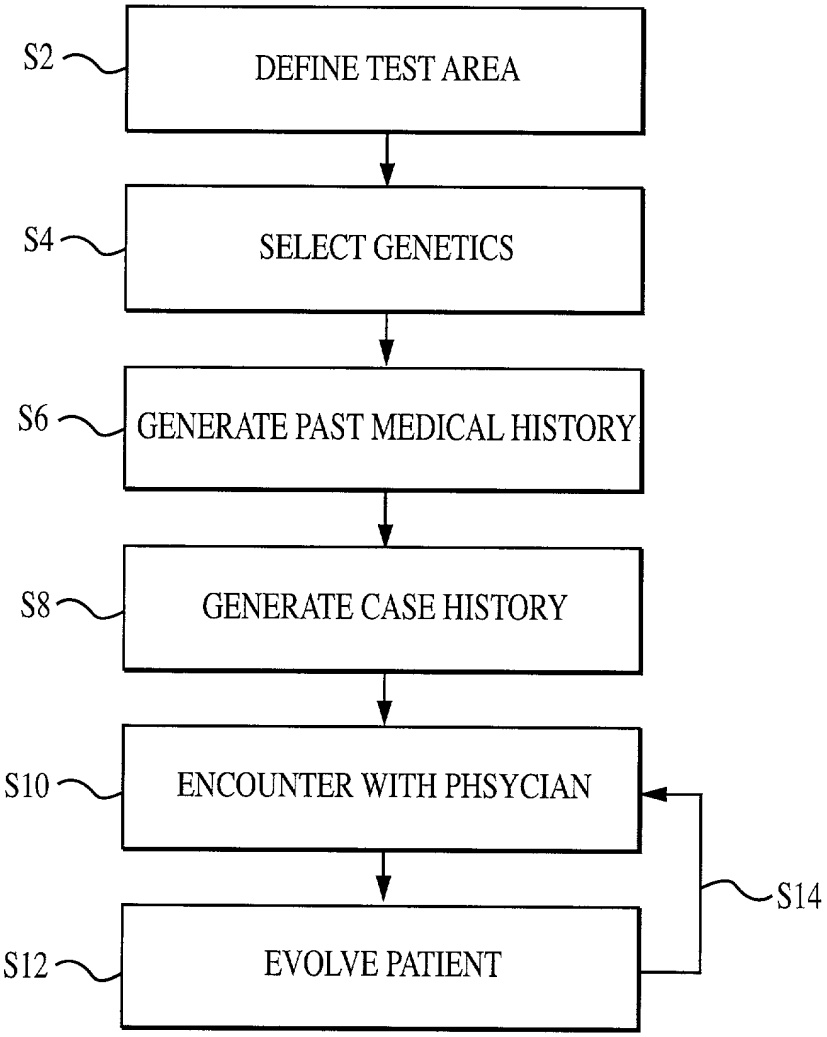

S2
DEFINE TEST AREA
S4
SELECT GENETICS
S6
GENERATE PAST MEDICAL HISTORY
S8
GENERATE CASE HISTORY
S10
ENCOUNTER WITH PHSYCIAN
S12
EVOLVE PATIENT
S14

FIG. 7

FIG. 8

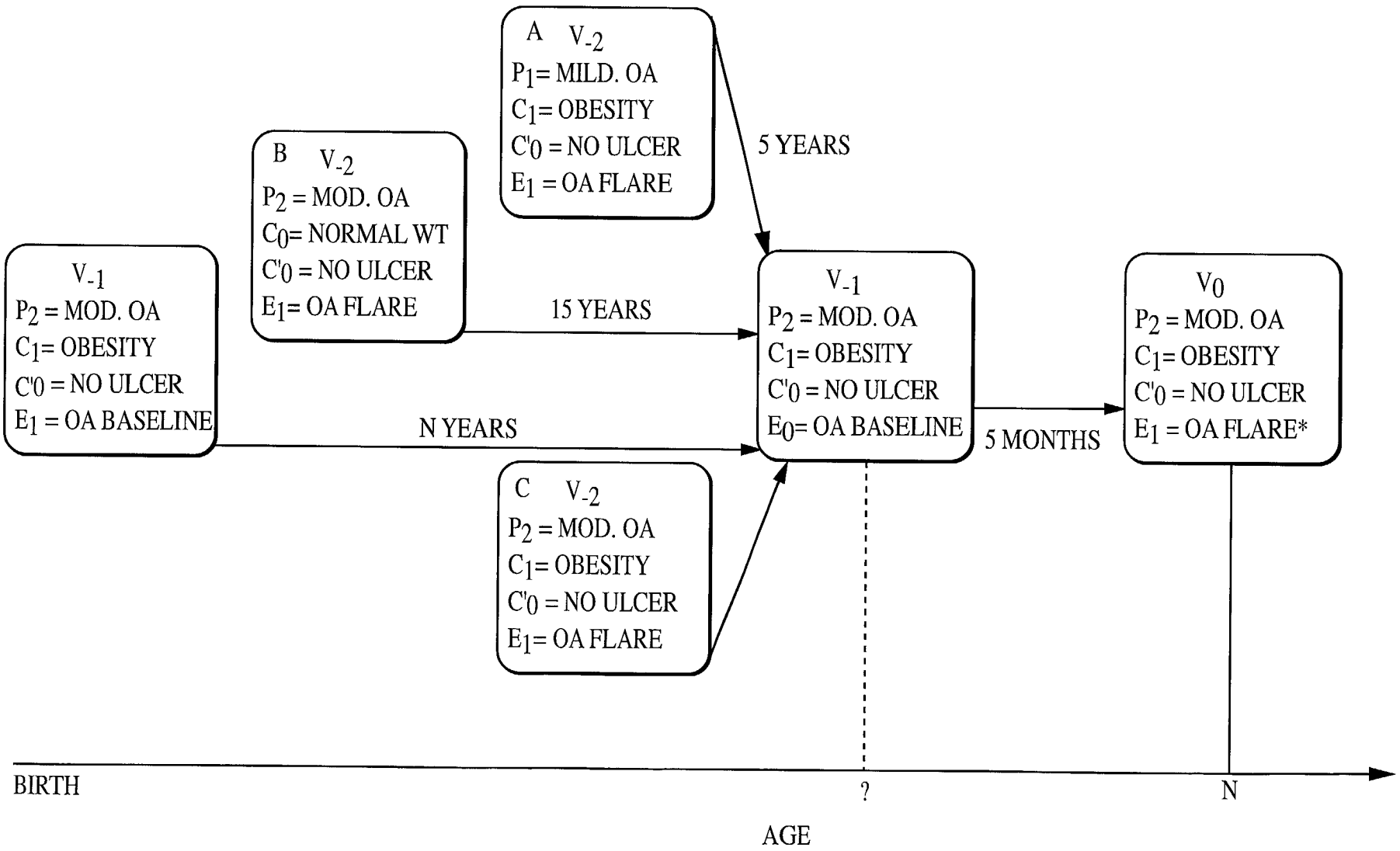
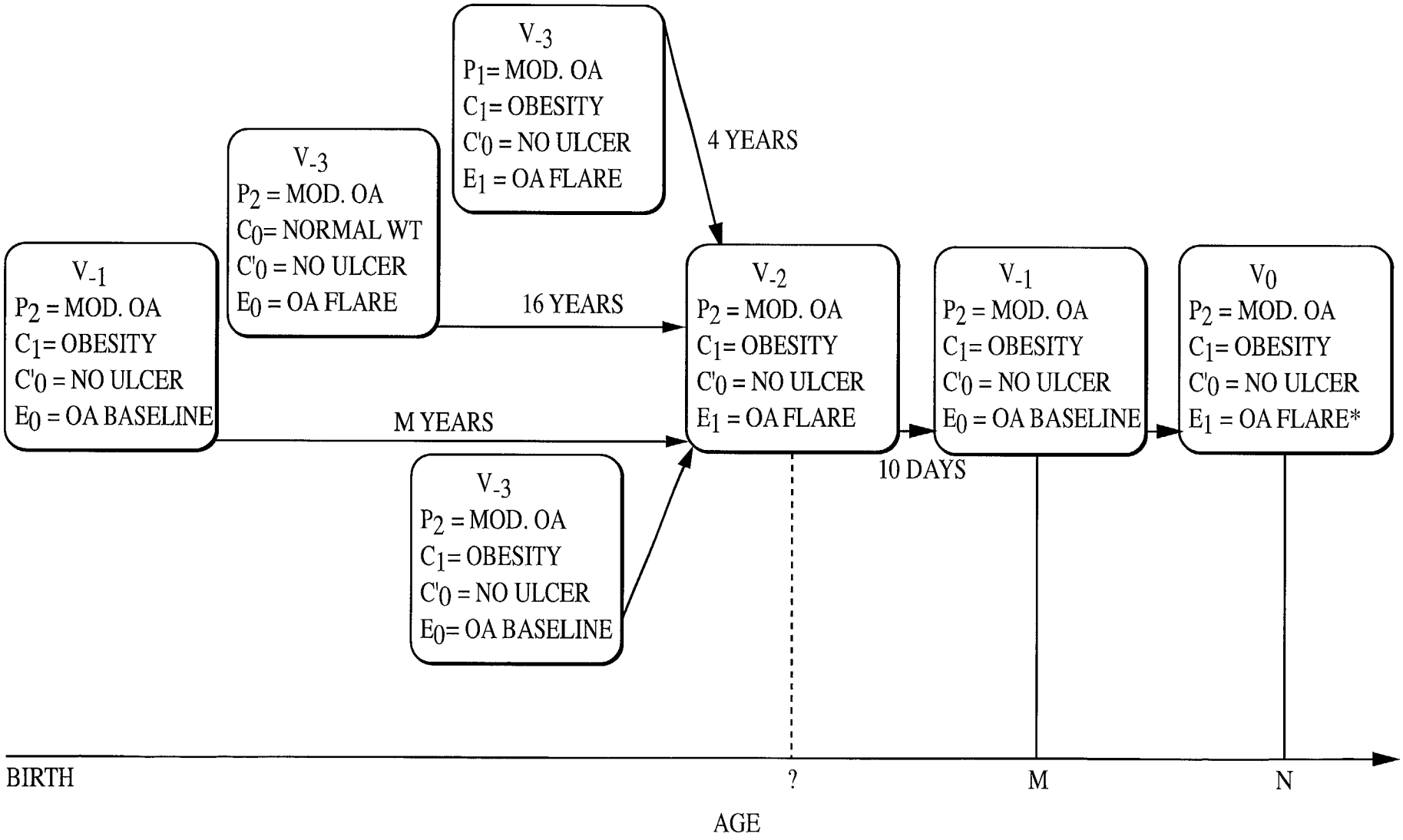

A V-2
P1= MILD. OA
C1= OBESITY
C'0 = NO ULCER
E1 = OA FLARE
5 YEARS
B V-2
P2 = MOD. OA
C0= NORMAL WT
C'0 = NO ULCER
E1= OA FLARE
15 YEARS
V-1
P2 = MOD. OA
C1= OBESITY
C'0 = NO ULCER
E1 = OA BASELINE
N YEARS
V-1
P2 = MOD. OA
C1= OBESITY
C'0 = NO ULCER
E0= OA BASELINE
5 MONTHS
V0
P2 = MOD. OA
C1= OBESITY
C'0 = NO ULCER
E1 = OA FLARE*
C V-2
P2 = MOD. OA
C1= OBESITY
C'0 = NO ULCER
E1= OA FLARE
BIRTH
?
N
AGE

FIG. 9


V-3
P1= MOD. OA
C1= OBESITY
C'0 = NO ULCER
E1 = OA FLARE
4 YEARS
V-3
P2 = MOD. OA
C0= NORMAL WT
C'0 = NO ULCER
E0 = OA FLARE
16 YEARS
V-1
P2 = MOD. OA
C1= OBESITY
C'0 = NO ULCER
E0 = OA BASELINE
M YEARS
V-2
P2 = MOD. OA
C1= OBESITY
C'0 = NO ULCER
E1 = OA FLARE
10 DAYS
V-1
P2 = MOD. OA
C1= OBESITY
C'0 = NO ULCER
E0 = OA BASELINE
V0
P2 = MOD. OA
C1= OBESITY
C'0 = NO ULCER
E1 = OA FLARE*
V-3
P2 = MOD. OA
C1= OBESITY
C'0 = NO ULCER
E0= OA BASELINE
BIRTH
?
M
N
AGE

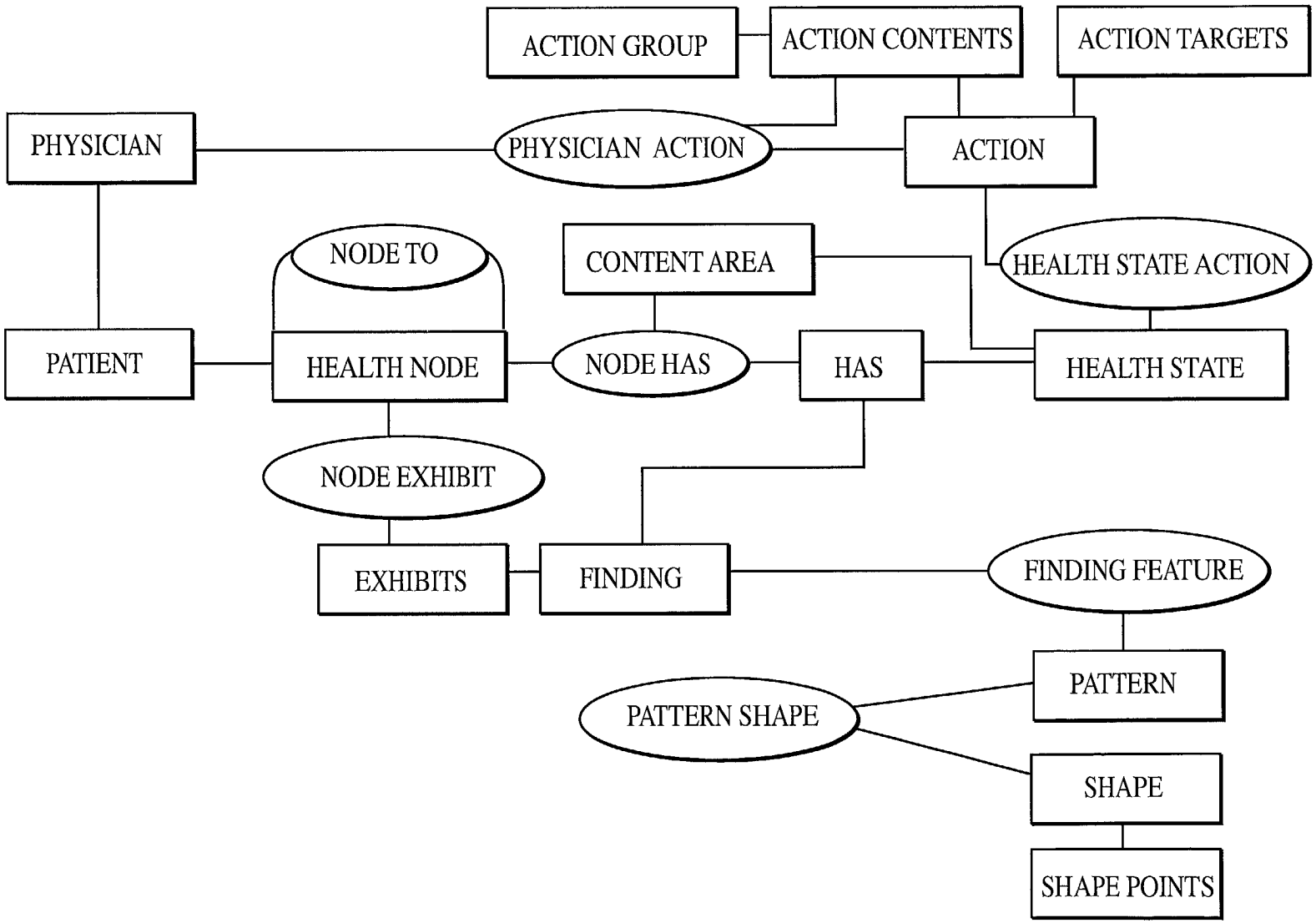

ACTION GROUP
ACTION CONTENTS
ACTION TARGETS
PHYSICIAN
PHYSICIAN ACTION
ACTION
NODE TO
CONTENT AREA
HEALTH STATE ACTION
PATIENT
HEALTH NODE
NODE HAS
HAS
HEALTH STATE
NODE EXHIBIT
EXHIBITS
FINDING
FINDING FEATURE
PATTERN
PATTERN SHAPE
SHAPE
SHAPE POINTS

FIG. 10

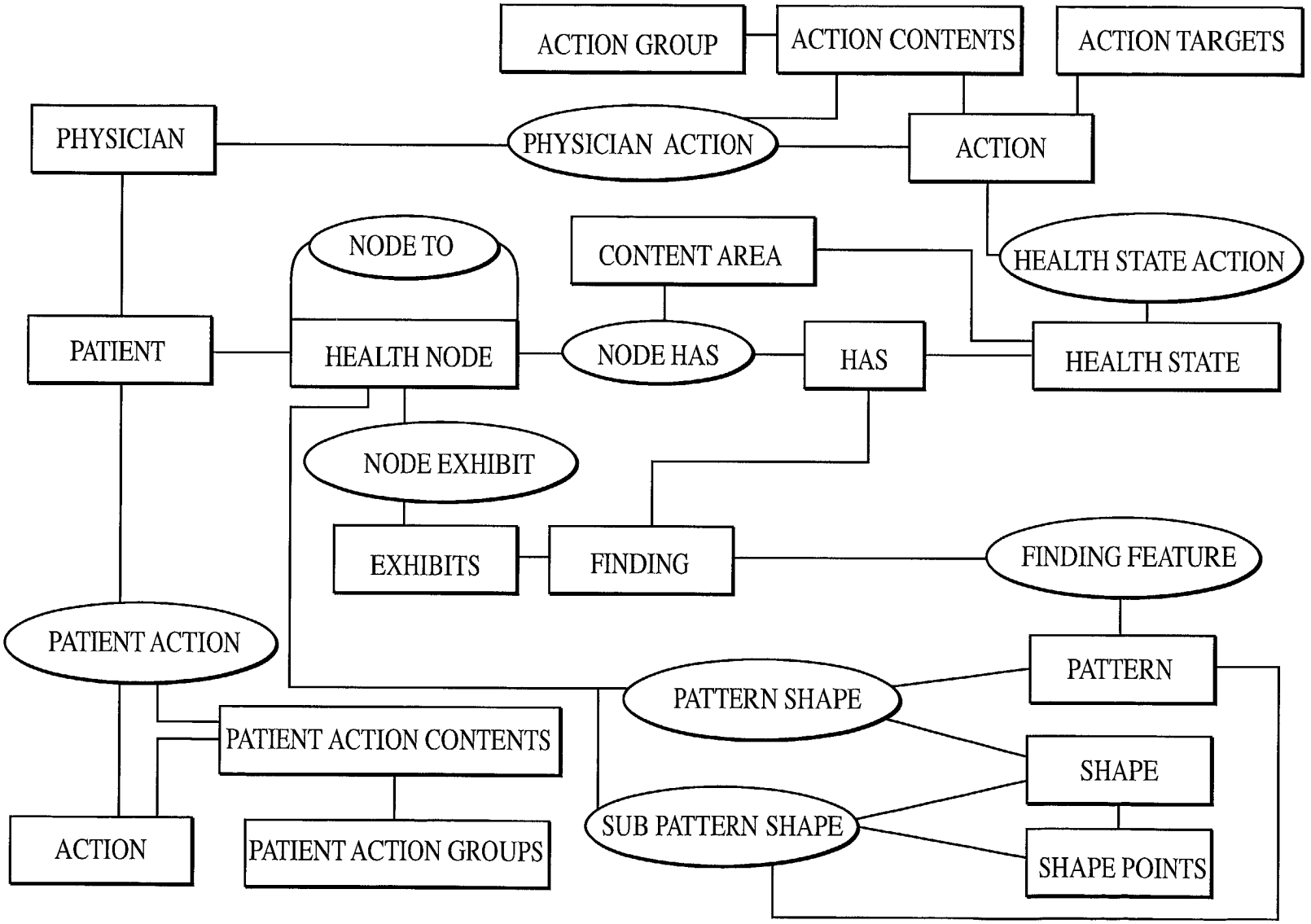

ACTION GROUP
ACTION CONTENTS
ACTION TARGETS
PHYSICIAN
PHYSICIAN ACTION
ACTION
NODE TO
CONTENT AREA
HEALTH STATE ACTION
PATIENT
HEALTH NODE
NODE HAS
HAS
HEALTH STATE
NODE EXHIBIT
EXHIBITS
FINDING
FINDING FEATURE
PATIENT ACTION
PATTERN
PATTERN SHAPE
PATIENT ACTION CONTENTS
SHAPE
SUB PATTERN SHAPE
ACTION
PATIENT ACTION GROUPS
SHAPE POINTS

FIG. 11

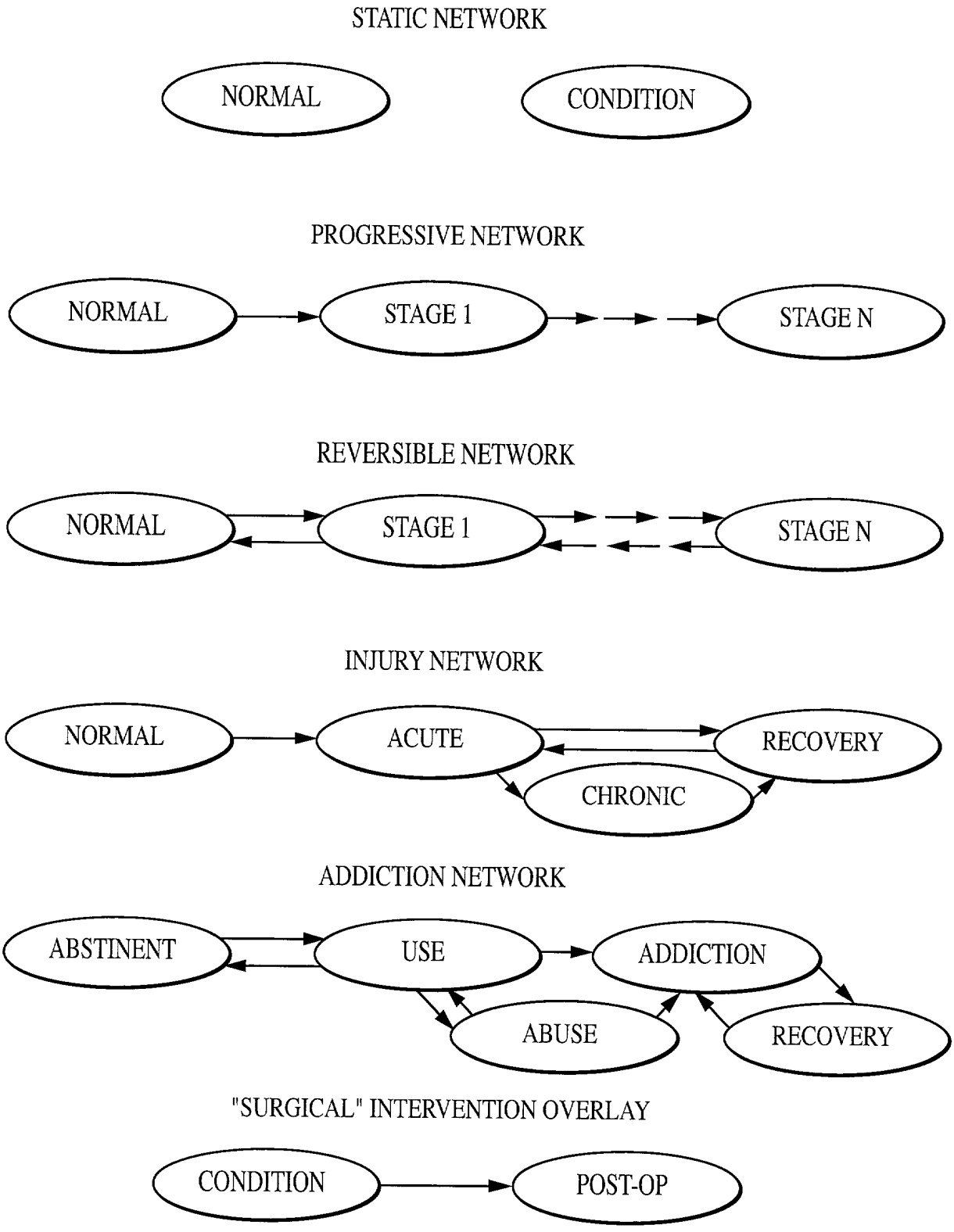

STATIC NETWORK
NORMAL
CONDITION
PROGRESSIVE NETWORK
NORMAL
STAGE 1
STAGE N
REVERSIBLE NETWORK
NORMAL
STAGE 1
STAGE N
INJURY NETWORK
NORMAL
ACUTE
RECOVERY
CHRONIC
ADDICTION NETWORK
ABSTINENT
USE
ADDICTION
ABUSE
RECOVERY
"SURGICAL" INTERVENTION OVERLAY
CONDITION
POST-OP

FIG. 12

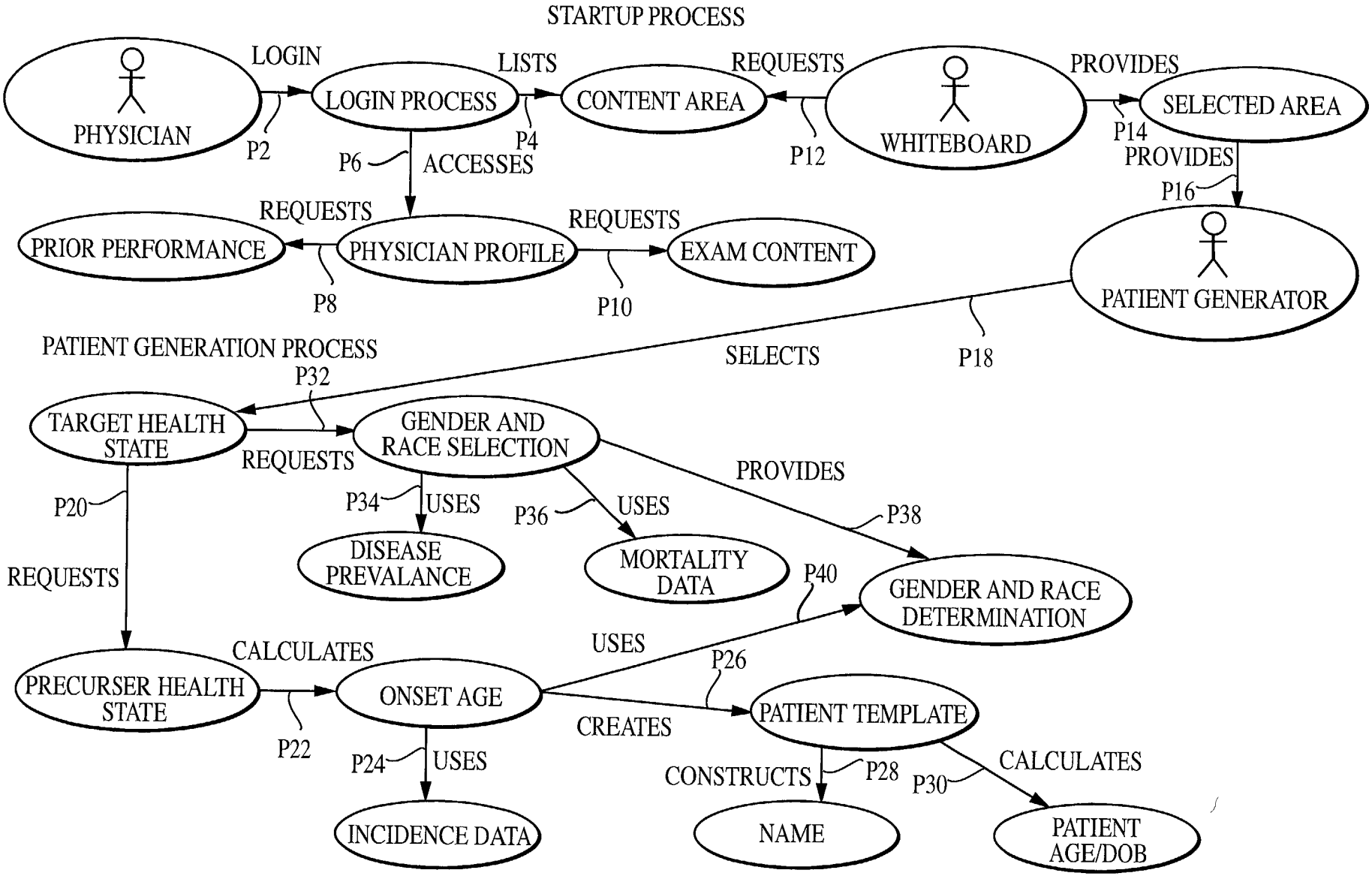

STARTUP PROCESS
PHYSICIAN
LOGIN
P2
LOGIN PROCESS
LISTS
P4
CONTENT AREA
REQUESTS
P12
WHITEBOARD
PROVIDES
P14
SELECTED AREA
PROVIDES
P16
P6
ACCESSES
REQUESTS
PRIOR PERFORMANCE
P8
PHYSICIAN PROFILE
REQUESTS
P10
EXAM CONTENT
PATIENT GENERATOR
PATIENT GENERATION PROCESS
SELECTS
P18
P32
TARGET HEALTH STATE
REQUESTS
GENDER AND RACE SELECTION
PROVIDES
P38
P20
P34
USES
DISEASE PREVALANCE
P36
USES
MORTALITY DATA
REQUESTS
P40
GENDER AND RACE DETERMINATION
CALCULATES
USES
P26
PRECURSER HEALTH STATE
P22
ONSET AGE
CREATES
PATIENT TEMPLATE
P24
USES
CONSTRUCTS
P28
P30
CALCULATES
INCIDENCE DATA
NAME
PATIENT AGE/DOB

FIG. 13

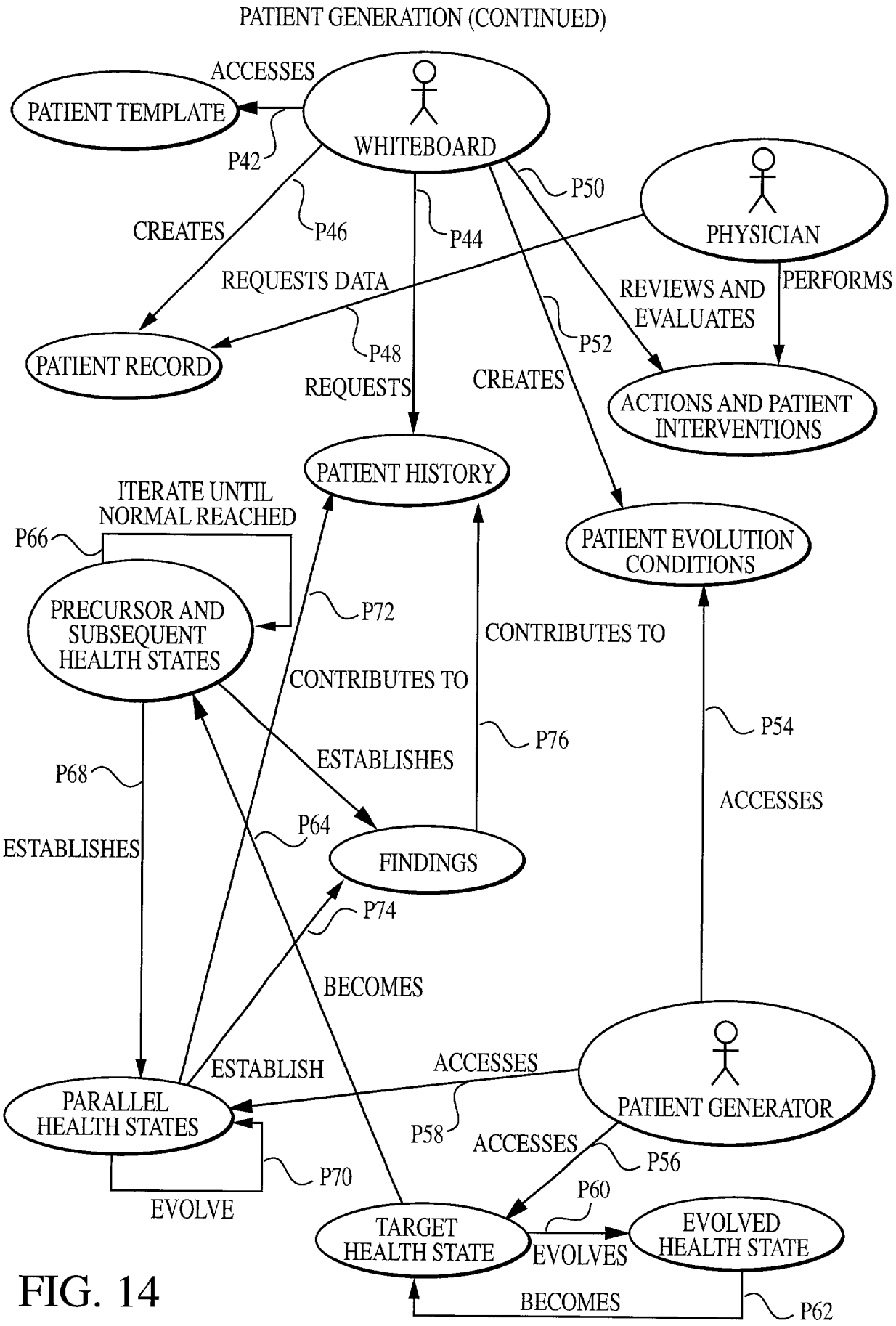

PATIENT GENERATION (CONTINUED)
ACCESSES
PATIENT TEMPLATE
P42
WHITEBOARD
P50
PHYSICIAN
CREATES
P46
P44
REQUESTS DATA
REVIEWS AND EVALUATES
PERFORMS
PATIENT RECORD
P48
P52
REQUESTS
CREATES
ACTIONS AND PATIENT INTERVENTIONS
PATIENT HISTORY
ITERATE UNTIL NORMAL REACHED
P66
PATIENT EVOLUTION CONDITIONS
PRECURSOR AND SUBSEQUENT HEALTH STATES
P72
CONTRIBUTES TO
CONTRIBUTES TO
P54
ESTABLISHES
P76
P68
ACCESSES
ESTABLISHES
P64
FINDINGS
P74
BECOMES
ESTABLISH
ACCESSES
PARALLEL HEALTH STATES
PATIENT GENERATOR
P58
ACCESSES
P56
P70
P60
EVOLVE
TARGET HEALTH STATE
EVOLVES
EVOLVED HEALTH STATE
BECOMES
P62

FIG. 14

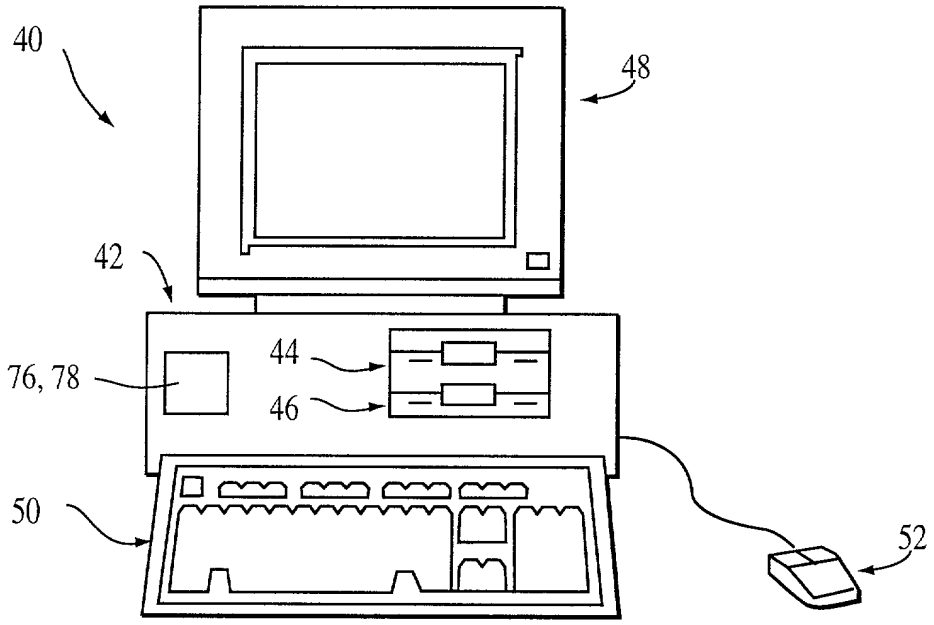

40
48
42
44
76, 78
46
50
52

FIG. 15

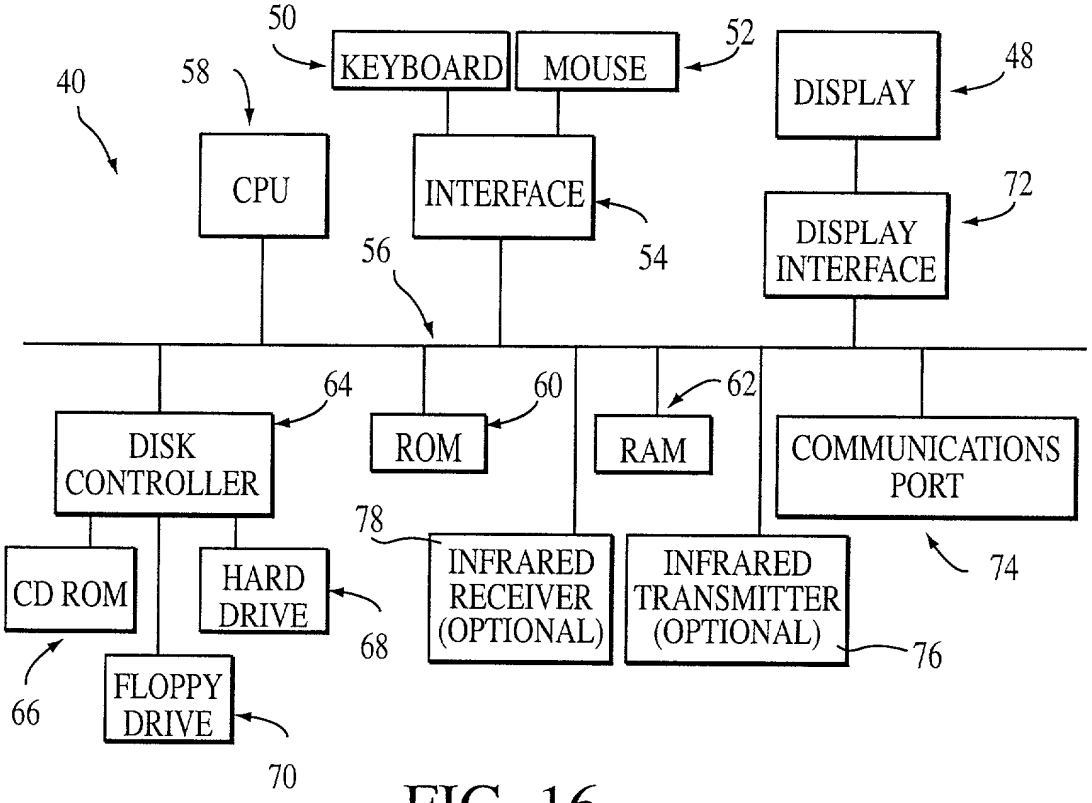

50
KEYBOARD
MOUSE
52
DISPLAY
48
40
58
CPU
INTERFACE
54
56
DISPLAY INTERFACE
72
64
60
62
DISK CONTROLLER
ROM
RAM
COMMUNICATIONS PORT
78
INFRARED RECEIVER (OPTIONAL)
INFRARED TRANSMITTER (OPTIONAL)
74
CD ROM
HARD DRIVE
68
76
66
FLOPPY DRIVE
70

FIG. 16

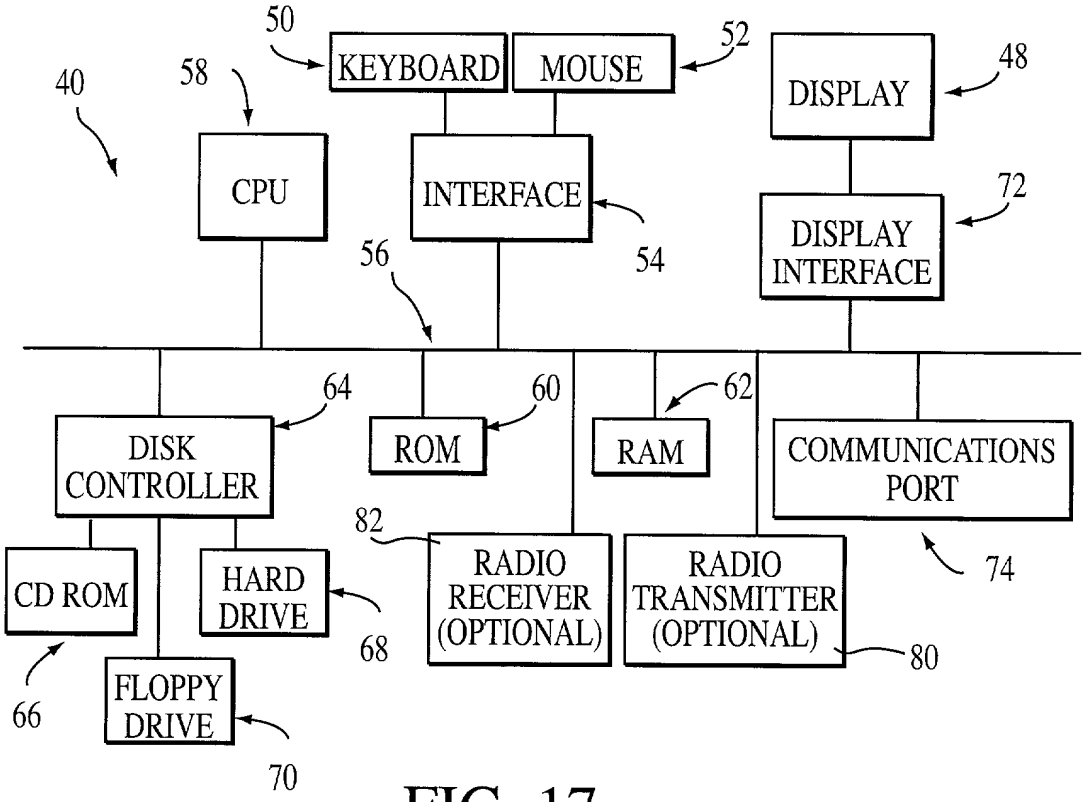

50
KEYBOARD
MOUSE
52
48
DISPLAY
40
58
CPU
INTERFACE
54
72
DISPLAY INTERFACE
56
64
60
62
DISK CONTROLLER
ROM
RAM
COMMUNICATIONS PORT
82
RADIO RECEIVER (OPTIONAL)
RADIO TRANSMITTER (OPTIONAL)
74
CD ROM
HARD DRIVE
68
80
66
FLOPPY DRIVE
70

FIG. 17

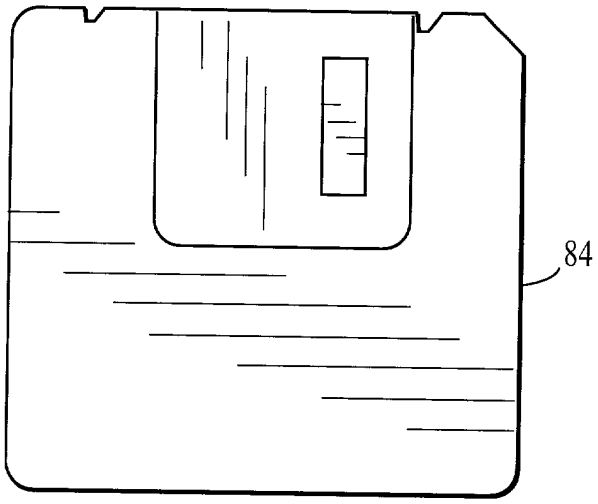


FIG. 18